In October 2002, **Denver Housing Authority**'s (DHA's) **Hirschfeld Tower** became one of the most water-efficient apartment buildings in the area, due to a cooperative effort between Denver Water and DHA. As part of its continuing commitment to improving the lives of low-income residents, Denver Water provided the funding.

"This project was a great partnership," said Pacetti. "We worked closely with Denver Housing Authority staff and residents to ensure that everyone understood the goals and issues involved.

"DHA was at the beginning of planning a major renovation for Hirschfeld Tower so our involvement came at a good time. In addition to meeting our goals, the project provided new equipment and lower bills for DHA and better-functioning equipment for the residents."

Teaming up for wise water use in Denver



Denver Water and Denver Housing Authority teamed up to install water conservation retrofits at Hirschfeld Tower, a 250-unit complex located a few miles from downtown Denver.

Denver Water provided funding of \$116,000 for the installation and purchase of **250 new low-flow toilets**, and hundreds of new **faucet aerators** and **showerheads**.



How much water is DHA saving? Donna Pacetti, project manager and conservationist with Denver Water said, "Based on the past few months of data, the indoor water use for the complex has dropped by **22 percent**.

The retrofits will save 4.7 acre-feet of water, or over **1.5 million gallons** of water each year. That's enough to supply about 10 typical Denver homes, and will save DHA about **\$6,000** in annual water and sewer costs.

With Denver Water rates on the rise, these retrofits will mean even higher avoided costs for DHA in the future."

DHA will save about \$6,000 each year on water and sewer costs." - Donna Pacetti, Denver Water

PROJECT DETAILS

Facility: Hirschfeld Tower, Denver Housing Authority

Facility Type: Public multifamily housing

Facility Size: 250-unit apartment complex

Project Cost: \$116,000 funded by Denver Water

Water Savings: 4.7 acre-feet of water, or over 1.5 million gallons of water each year. \$6,000 per year savings in reduced water and sewer costs.

Water Efficient Features:

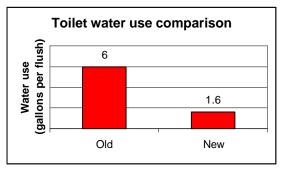
- Replaced old toilets with new 1.6 gallon-per-flush toilets
- Replaced faucet aerators
- Replaced showerheads

The **lowly toilet** is the champion of water conservation efforts, since a new toilet uses just **1.6 gallons per flush**, compared to 6 gallons for the old toilets at Hirschfeld Tower. Replacing showerheads and faucets with new low-flow models can also reduce water use.

An additional benefit of this project is that it is providing Denver Water with a wide sample for measuring average savings of water conservation measures.

Since occupant behavior varies widely, savings from individual homes will vary too. "By installing measures in a 250-unit complex and by monitoring the consumption with a data logger on the main tap for the complex, we can compare before and after data to develop solid data on the actual water saved for the entire complex." Winter months provide indoor consumption, when no water is being used outdoors for irrigation.

This information will help Denver Water by providing solid data on the average impact of conservation measures and guidance for future water efficiency investments and incentives. **Denver Water** is now offering **incentives for residential and commercial customers** for low-flow toilets of \$100 or more. See details at www.denverwater.org.



Toilet replacements are the champions of water conservation projects.

Chuck Schloz, Chief Operating Officer of DHA said, "Denver Water and DHA share a common goal: to effectively reduce the use of one of our most precious resources—water. Denver Water has demonstrated that they are committed in their mission of aggressively addressing ways to cut the water bills for low-income residents. And as the city's leading housing agency, DHA is committed to continuing to work with Denver Water in furthering this effort."

"I wish all projects would go this smoothly," noted Pacetti. "The general contractor for the project, Sun Power, Inc, of Denver, focused on using **quality products** and using **professional plumbers** for the installation and thus avoided potential problems. This is a great start and we look forward to more projects with DHA and other low-income housing providers."

For more information about the project, contact:

- Chuck Schloz, Denver Housing Authority, Chief Operating Officer, 720-932-3106, e-mail cschloz@dhanet.com
- **Donna Pacetti**, Denver Water, Water conservationist, 303-628-6327 e-mail donna.pacetti@denverwater.org

"Denver Water and Denver Housing Authority share a common goal: to effectively reduce the use of one of our most precious resources—water."

- Chuck Schloz, Chief Operating Officer, Denver Housing Authority

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Governor's Office of Energy Management & Conservation 225 East 16th Avenue, Suite 650
Denver, CO 80203
303-894-2383 x1203
1-800-632-6662 (toll-free)
rebuildco@state.co.us
www.colorado.gov/rebuildco